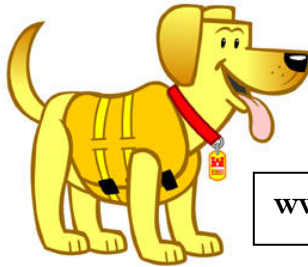


Bobber the Water Safety Dog says:



www.bobber.info

1. Always wear your life jacket while around water.
2. Never swim alone
3. Don't dive into lake waters without first checking for underwater hazards.
4. Don't take unnecessary chances.
5. Visit Bobber's website: www.bobber.info



HELP SAVE A TREE – Return trail guide to rack for re-use.



U.S. Army Corps of Engineers
Philpott Lake Visitor Assistance Center
1058 Philpott Dam Road
Bassett VA 24055
Telephone: (276) 629-2703
Fax: (276) 629-3493
E-mail: philpott@usace.army.mil
Website: www.saw.usace.army.mil/philpott/index.htm



Roland Branch Interpretive Trail Guide

Philpott Lake



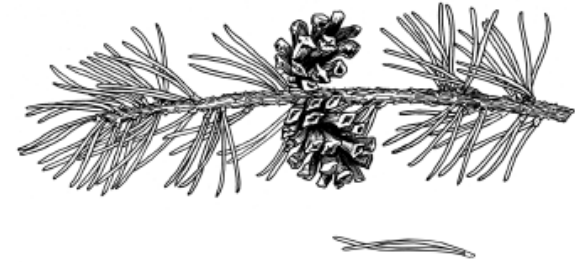
The steam from the boiling mixture contained a high amount of alcohol. The steam was condensed (changed back to a liquid) by passing the steam through a coil of copper pipe (the worm) submerged in a barrel of cold water. The resulting liquid from the worm was a very high alcoholic content whiskey and was called moonshine. Moonshine probably got its name from the fact that it was made by the light of the moon. **PLEASE DON'T DISTURB, TOUCH, OR REMOVE ANY REMAINS OF THE OLD STILL THAT YOU MAY SEE.**



25. The Forest: Look at all of the beautiful trees. But trees play a much more important part in our life than just providing beauty. Trees absorb millions of tons of pollutants from the air, making it safe for us to breathe. Without trees, much of our furniture, like the bed we sleep on, would not exist. The paper for the trail booklet you're reading would not exist. Trees absorb many tons of carbon dioxide to protect our world from run-away global warming. Trees replenish the oxygen we need to support our lives. The woods around you provide shelter and food for the many species of wildlife at Philpott Lake. Trees provide leaf cover to replenish nutrients in the soil and to prevent erosion. It is pretty safe to say that if all the trees disappeared, so would human life. We encourage you to learn more about trees and to learn ways to protect our forests from wildfires, diseases and abuse. Our resources are our future.

THIS MARKS THE END OF THE TRAIL. TURN AROUND

grain lumber makes it highly sought after to produce barrels, tools, furniture, and flooring for homes. A substance called tyloses plugs the vessels in the wood, making it water-tight. This trait made the white oak's lumber ideal for early ship-building.



3. Virginia Pine: The Virginia Pine's lumber is used in rough construction, however it warps very easily during wet and dry cycles. Its long, woody fibers make it excellent for paper production. The Virginia Pine has cones which mature and drop their seeds in two years. But the cones can remain on the tree for several years after the seeds fall. Small songbirds love the seeds and thick stands of young Virginia Pine make an ideal place for birds to roost. Deer also like to feed on the young foliage. Because of the Virginia Pine's ability to grow in very poor soil, the tree has been used in plantings to reclaim areas which have been stripped mined. In recent years, pine bark beetles have devastated stands of Virginia Pine around the Philpott Lake area.



4. Eastern White Pine: The Eastern White Pine's wood is light colored, of medium strength, and has straight grain. It has many industrial uses including building lumber, cabinet making, furniture, and interior finishing. White Pines are also grown in Virginia for Christmas trees. Birds and squirrels love the seeds produced in the long cones of the White Pine. In the Philpott Lake area, White Pines may reach a height of 200 feet and may grow to three feet in diameter,

making it the largest conifer in eastern North America. During Colonial times, the Eastern White Pine's great height put it in high demand to produce masts for early ships.



5. American Beech: The American Beech produces a fruit (beech nuts) contained in a prickly bur about $\frac{3}{4}$ inch long. Each bur contains 2 nuts. The nuts are eaten by many birds and mammals including mice, squirrels, chipmunks, black bear, deer, foxes, grouse and ducks. Many of the older trees, which can reach a height of eighty feet and a diameter of three feet, become hollow, making excellent homes for wildlife. The Beech's wood is very hard, strong and tough. However, it is not durable when exposed to weather. The wood is used for furniture, flooring, rough lumber, tools, baskets, and charcoal. The American Beech's wood also has some medicinal value.



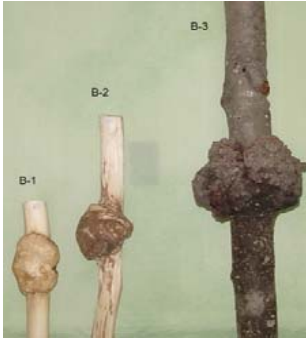
6. Mockernut Hickory: The heavy, hard, tough, and strong white colored wood of the Mockernut Hickory is harvested for tool handles, skis, furniture, and baseball bats. It is also an excellent firewood and is used to produce charcoal. Philpott's squirrels, bears, deer, foxes, and beavers feast off the nuts. Mockernut Hickory trees are found throughout Virginia and reach heights of 100 feet. The tree



23. Watershed: The valley or hollow in which you're standing and the one you see to the right, are part of the watershed or drainage basin. Water from rainfall and snow melt drains downhill to the small stream and eventually into the lake. Water from the lake eventually is released into Smith River which empties to the Dan River which empties into the Roanoke River which flows into the Atlantic Ocean at the Albemarle Sound. The drainage basin (we are a part of the Roanoke River Basin) acts like a series of funnels to collect the water within the basin and channel it to a waterway. Different river basins are separated by some geological feature, such as a mountain range. We lie between the James River Basin and the Cape Fear River Basin.



24. Moonshine Still: While hundreds of thousands of visitors come to Philpott annually to enjoy the sunshine, a few, in days gone by, came to enjoy the moonshine! Moonshine is illegal liquor which was manufactured, or distilled, at locations like you see here. The horseshoe shaped pile of rocks served as a furnace which contained a fire to cook a mixture of corn, water, and yeast known as "mash".

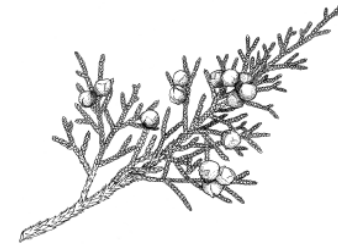


21. Plant Burl: Burls are fast growing, abnormal growths on trees. A burl is usually found, like the one on this small tree, in the form of a rounded outgrowth on the tree trunk. A burl results from a tree that has some form of environmental stress. Burls can be caused by bacteria or by insect infestations. Many burls actually grow underground on the tree roots. This type of burl usually goes undiscovered until the tree falls over. Some burls reach enormous size attaining heights of over 6 feet. The grain of the burl grows in a very deformed manner creating beautiful patterns that may be used for household items, picture frames, veneers in furniture, and automobile interior trim. However, because of the irregular grain growth, the wood is hard to work.



22. Rhododendron: The rhododendron is actually a native East-Coast Azalea. The shrub is an evergreen with its long, waxy leaves maintaining their green color throughout the winter. In the Spring, the Rhododendron produces a large, fragrant white bloom. Because of its relatively small size, its bushy shape, and its flowering blossoms, the Rhododendron, is sought as an ornamental shrub. In the wild, Rhododendrons grow close together and their twisted branches form thickets which are almost impenetrable. Local animals, especially deer, seek areas covered by the Rhododendron to provide shelter, bedding areas, and protective cover.

grows tall and straight. The Mockernut Hickory may reach an age of 500 years.

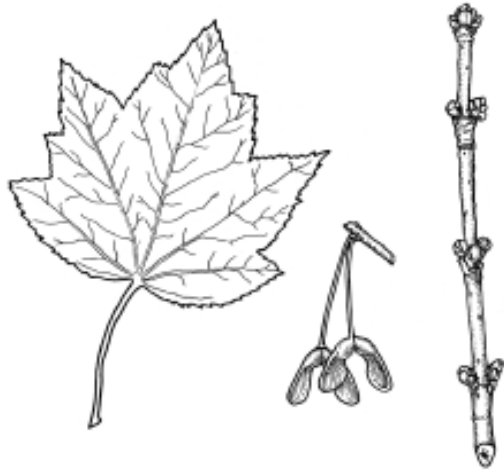


7. Eastern Redcedar: The Eastern Redcedar is found in all parts of Virginia. It is often seen growing in abandoned fields and along roadsides. The wood is fragrant, soft, and strong. The red heartwood and white sapwood produce beautiful effects when finished. Because the heartwood is resistant to decay, the Redcedar makes excellent posts, poles, cabinets, and chests. The natural oils produced in the wood repel insects. It is often used as paneling for closets and cedar shavings make excellent pet bedding material. The berry-like cones are a favorite food of many song and game birds from waxwings to quail. The thick foliage provides excellent cover for nesting and roosting birds. Redcedars are also good for protecting soils from erosion.



8. Fish Structure: Structural features, such as the fallen trees you see here, are important in helping to maintain a diverse and healthy lake ecosystem. They are also important in sustaining gamefish and non-gamefish populations. Structure provides a place for fish to hide from predators, shade from the hot summer sun, spawning and nesting habitat, and places for food organisms to live. Fish like to hide, especially when bigger fish and other predators are looking for a meal. Without hiding places like this fallen tree, populations of young fish and smaller fish species are at risk of being significantly reduced.

by predation (eaten). As you continue on your walk, look for other fish structures.

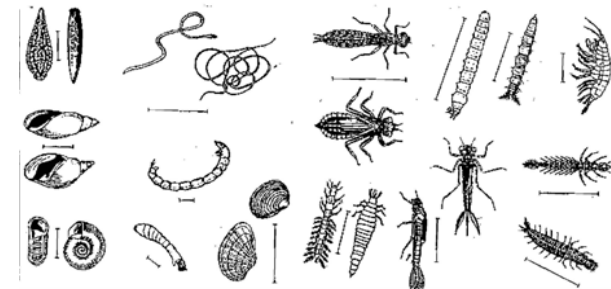


9. Red Maple: The Red Maple offers some of the most spectacular fall colors of any tree in the Blue Ridge Mountains with its brilliant orange and scarlet leaves. Its winged shaped seeds fall to the ground like little helicopters, providing food for birds, squirrels, and other rodents. Deer also feed on young Red Maple sprouts. The wood is softer than the other maple species and is somewhat weak. However, it still has value in the furniture and paper industries. Red Maples with their large crowns and 90 foot heights make popular shade and ornamental trees. The Red Maple is the most tolerant to soil variation and conditions of any tree in North America, making it common in many regions.

10. Nature's Oddity: At first glance, it appears that two species of trees are growing from the same stump. But closer examination reveals that the Hickory tree on the right has extended its root system in a manner which has completely encompassed the Beech tree on the left. Trees exhibit amazing adaptability. Their root systems can run many feet and go around or through many obstacles to obtain their needed water and nutrients. Trees can be found growing on what appears to be almost bare rock, from dead logs, in sidewalk cracks, or even in standing water. As you continue your journey on the Roland Branch Trail, see if you can discover your own oddity of Nature.



19. Yellow Poplar: This tree grows tall and straight. The Yellow Poplar can reach heights over 200 feet, diameters of greater than 3 feet. The shape of the yellow blooms in the Spring resemble a tulip, thus giving the Yellow Poplar one of its common names, the tulip tree. The wood is soft and very easy to work. The wood is used in a variety of products including building lumber, veneers, paper pulp, chip board, plywood, and framing for furniture products. The Yellow Poplar is a very important tree for the local sawmilling industry. Deer, birds, and small mammals feed off of various parts of the tree. The bark is a favorite food of Philpott's beaver population. Bees make a tasty honey from the blossoms and the Yellow Poplar makes an ideal tree for shade and landscaping.



20. Stream Life: This little stream seems unimportant as it meanders to the lake. However, it is teeming with life. Millions of microscopic organisms live in the stream. Water insects and other larger organisms feed on the microscopic species. The stream is also home to salamanders and crayfish. The nocturnal raccoon, with its bandit's mask, frequently hunts the stream at night to feast on its inhabitants. The small stream also irrigates the water dependant plants along the banks. Streams like this one are a very important part of the watershed which will be discussed at a future stop.



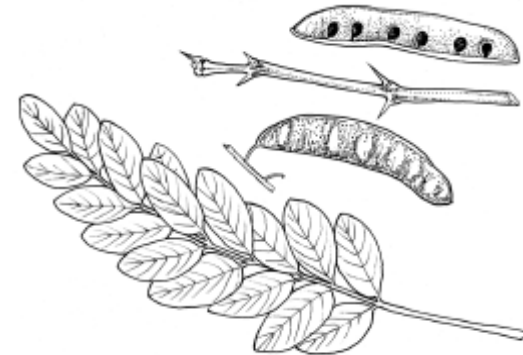
17. American Hornbeam: A small bushy tree reaching a height of 30 feet, the American Hornbeam is found all over Virginia. Its wood is heavy, close grained, tough, and very strong. Although this tree's wood is rarely harvested, it has been used for handles, mallets, and wedges. The small nutlet fruit is a good food for squirrels and different species of birds. If you look at the shape of the trunk, it resembles well developed, rippling muscles, hence one of the common names, musclewood.



18. Hollow Tree: What caused this tree to die? Did someone carve their initials in the bark and allow bacteria or some disease to attack the tree? Did it get struck by lightning? Did heavy ice or strong winds break the top out? Any of these things could have happened. But the value of the tree didn't stop when it died. Look at all the holes. After the tree died, it was attacked by insects. The holes you see were made by woodpeckers searching for a tasty insect treat. And don't be surprised if a fat raccoon or opossum lives in this hollow tree. Certainly, many gray squirrels have "hidden out" here until a passing fox or coyote no longer was a danger. Someday, the hollow tree will fall. And like the rotting logs you have already learned about, will return its stored nutrients to the soil.



11. Sourwood: The Sourwood is found throughout southern Virginia. The tree is usually leaning and is poorly formed with many crooked branches. It reaches a maximum height of 40 feet and a diameter of 12 inches. The wood is heavy and hard with a compact grain. It is sometimes used for handles, but most often for firewood and pulp for paper. In the Spring, white urn shaped flowers adorn the tree. Bees use the flower's nectar to make a highly sought after light colored honey. Sourwood trees are sometimes planted as an ornamental and they naturally spread over cutover land.



12. Black Locust: The Black Locust, also known as the Yellow Locust, grows throughout the western portion of Virginia. It may reach a height of 70 feet and a diameter of 2 feet. Its wood is very heavy, very strong, and hard, and is very resistant to decay. These qualities make it excellent for fence posts, poles, split rails, and decking. The Locust was also once used as support timbers in western Virginia's coal mines. Cottontail rabbits and deer feed on Locust sprouts and seedlings. Many birds feed on the seeds produced by the Black Locust. Bees produce a dark, but tasty honey from the Black Locust's flowers. Black Locust trees are damaged by heart rot fungi. You can see fungal growths on the side of this tree. Older

trees with heart rot become hollow. Woodpeckers and other cavity nesters make these trees home. Black Locusts are also good for reclaiming strip mine sites.



13. Beaver Activity: Beavers alter the environment more than any other creature, except for humans. Look at the Virginia Pines. The bark at the bottom has been eaten away by beavers. One pair of beavers alone can cut as many as 400 trees annually to build their dams and the lodges in which they live. Being totally vegetarians, beavers eat bark and twigs from the trees they cut. If you're around the lake at night, listen for the tell-tale "slap" on the water. This is the sound of the beaver communicating a sign of danger to other beavers in the area. A tree's bark is like our skin. It protects the tree from bacteria and diseases. These Virginia Pines will most likely eventually die because they have lost their protective "skin".

14. Philpott Lake: In 1944, due to severe flooding for many years, Congress authorized the construction of Philpott Dam to tame the Smith River. The Smith River is part of the Roanoke River Basin that eventually empties into the Atlantic Ocean at the Albemarle Sound in North Carolina. The U.S. Army Corps of Engineers began construction of the 220 foot high Philpott Dam in 1948 and started protecting the downstream towns from devastating floods in 1951. With the completion of the dam, 3000 acres of mountain valleys in the Counties of Henry, Patrick and Franklin were flooded to create today's Philpott Lake. The lake is surrounded by 7,000 acres of forested land which is owned and managed by the Corps. With all of the water and forests, the Philpott area offers a variety of recreational opportunities for every sportsman and outdoor recreational enthusiasts.



15. Rotting Logs: Trees, like all plants and animals, will eventually cease to live. A tree may die of old age or it may have its life cut short by disease, insect infestation, fire, weather damage, or by harvest for human use. The fallen trees like you see here and throughout the woods still serve a valuable purpose even after death. As the tree decays, it becomes food and home for thousands of insects. The insects are eaten by reptiles, birds, rodents, other insects, and even the black bears that roam the Philpott forests. The nutrients that were stored in the tree are returned to the soil as the tree decays and help to provide a fertile location for future trees to grow, starting the life cycle all over again.



16. White Quartz: The white quartz to the right represents two occurrences. The large boulder outcroppings are typical of the naturally occurring vein quartz found throughout Virginia's mountains. This quartz is usually a milky white color and is very hard and durable. The black or reddish staining is from iron oxide and/or manganese. White quartz is used in cast concrete products and as a decorative stone around bushes, trees, flowers, and driveways. White quartz was very valuable to Native Americans to fabricate arrowheads, spear points, and other tools. The smaller stones, which appear to have been piled up, were in fact piled up, indicating that the entire hillside was once farmed. This area was cleared, probably over 100 years ago, and all the rocks taken to one end of the field. Can you imagine trying to make a living for your family by farming the steep hillsides with a plow and a team of horses? Over the years Nature has reclaimed the abandoned field and returned it to forest.